

selecting the desired digital programs or channels using the generated instructions, wherein the selected digital programs or channels are a subset of the plurality of digital programs or channels contained in the multiplexed signal; and

combining the selected digital programs or channels into a combined signal for transmission.

75. (New) The method of claim 74 wherein the combining step comprises a serializer combining the selected digital programs or channels into a combined signal for transmission.

76. (New) The method of claim 74 wherein the selecting step comprises digital logic selecting the desired digital programs or channels using the generated instructions.

77. (New) A method for cherry-picking desired digital programs or channels from a multiplexed signal comprising the steps of:

receiving information and a plurality of multiplexed signals, each multiplexed signal containing a plurality of digital programs or channels, wherein the information includes data on identities of the desired digital programs or channels;

generating instructions regarding the desired digital programs or channels, wherein the instructions are generated using the received information;

selecting the desired digital programs or channels using the generated instructions, wherein the selected digital programs or channels are a subset of the plurality of digital programs or channels contained in the multiplexed signals; and

combining the selected digital programs or channels into a combined signal for transmission.

78. (New) The method of claim 77 wherein the combining step comprises a serializer combining the selected digital programs or channels into a combined signal for transmission.

79. (New) The method of claim 77 wherein the selecting step comprises digital logic selecting the desired digital programs or channels using the generated instructions.

REMARKS

Claims 28-73 are pending. Claims 74-79 have been added. Claims 28-30, 32-56, and 60-64 are withdrawn from consideration. Claims 31, 57-59, and 65-73 are rejected.

New claims 74-79 read on the elected Figures. New claims are supported throughout the text. Attached hereto is a marked-up version of the changes made to the claims by the current

Amendment and Response. The attached page is captioned “Version with markings to show changes made.”

Election/Restriction

The Examiner issued a species restriction requirement stating that Figures 4, 5a, 5b, 6a, 6b, 6c, 7, 8, (9a, 9b), 11 and 12 represented patentably distinct species. Applicants provisionally elected the Figure 12 species, but contended that this species included Figures 7, 8, 9a and 9b. The Examiner apparently accepted Applicants election of Figures 12, 9a, 9b, 8 and 7. See Paper No. 11, bottom of Page 3 – “...in relation to *elected* Figures 12, 9a, 9b, 8 and 7” (Emphasis added). Applicants affirm this election.

Applicants contended that claims 31, 47-49, 55-59 and 65-73 were all readable on the elected Figures. In Paper No. 11, the Examiner contends that claims 47-49 are readable on the Figures 5a-6c. The Examiner apparently contends that these claims are not readable on the elected Figures since “[t]here are no discussions...of the ‘demultiplexer...performing selection of the desired programs or channels according to the instructions sent from the CPU’ (as recited in claim 47) in relation to [the] elected Figures.” Paper No. 11, page 3.

The Applicants respectfully disagree with the Examiner. In discussing Figure 7, which is a subset of Figure 12, as stated above, the specification states that the CPU instructs the demultiplexer as to selecting. Specifically, the specification states: “[t]he *selecting* function components include the demultiplexer 144 and the digital logic components 146, which *receive* instructions from the Control CPU 90.” Page 30, lines 20-23 (Emphasis added). Please note that this sentence states that the demultiplexer is a *selecting* function component and that the demultiplexer *receives* instructions from the Control CPU. In light of the detailed description of the demultiplexer performing selection of program according to instructions sent from the CPU elsewhere in the specification, one of ordinary skill in the art would clearly understand that such was enabled and described with respect to Figure 7. Therefore, claims 47-49 do read on the elected Figures and examination of these claims is respectfully requested.

Section 112 Rejections

Claims 57-59, 65-66 and 70-73 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make

and/or use the invention. In other words, the Examiner rejects these claims as not being enabled by the specification.

Claims 57-59 and 65-66

With regards to claim 57, Paper No. 11 states that “[t]he specification fails to enable one skilled in the art to make or use the ‘CPU managing and monitoring the digital logic component and the serializer’ as recited in claim 57 (last line).” Page 5. The Applicants respectfully disagree with the Examiner. For a claim to be enabled under section 112, the specification must describe the claimed invention so that that one of ordinary skill in the art could make or use the claimed invention without undue experimentation. *In re Wands*, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). “The test of enablement is whether one reasonably skilled in the art could make or use the invention from the disclosures in the patent coupled with information known in the art without undue experimentation.” *United States v. Telectronics, Inc.*, 857 F.2d 778, 785, 8 USPQ2d 1217, 1223 (Fed. Cir. 1988). Applicants respectfully maintain that one of ordinary skill in the art would be able to make the claimed invention, with the CPU managing and monitoring the serializer, without undue experimentation.

When interpreting a claim, a claim term must be given its plain meaning unless the specification provides a different definition for the term. Given their plain meaning, “managing” means “having executive or supervisory control or authority” and “monitoring” means “observ[ing] and check[ing] the progress or quality of (something) over a period of time.” *The New Oxford American Dictionary*, Oxford Press (2001). So defined, Applicants respectfully note that one of ordinary skill in the art would be able to make an apparatus with a CPU having executive or supervisory control or authority over a serializer, and its operation, and observing and checking the progress or quality of the serializer, and its operation, over a period of time, as recited in claim 57, without undue experimentation. It follows then, that the description in the specification can only further enable claim 57.

Indeed, as recited in Paper No. 11, the specification, at page 31, lines 7-10, states “[i]n addition to providing instructions to the combiner 104 for selection of videos, the control CPU (90) *effectuates the combining process and monitors the process* to ensure *integrity* of the *combined* signal.” (Emphasis added). Effectuating is clearly synonymous with “having executive or supervisory control or authority” and the specification explicitly recites monitoring here. As recited elsewhere in the specification, in the embodiment at issue, the *serializer* does

the combining and, therefore, executes the *combining process* and produces the *combined* signal. “The serializer 148 performs the final step of the Combiner 104, combining the signal.” Page 40, lines 23-24. “The serializer 148 subsequently creates one signal for transmission...” Page 31, lines 4-5. Therefore, the above-statement clearly means that the control CPU manages the serializer, and its operation, and monitors the serializer, and its operation, to ensure the integrity of the signal produced by the serializer. Consequently, the specification enables claim 57, and its dependent claims 58-59 and 65-66, and allowance of these claims is respectfully requested. Applicants respectfully note that claims 57-59 do not recite that the CPU is connected to the serializer.

Claims 70-73

Paper No. 11 states that “the specification fails to enable one skilled in the art to make or use ‘a method of filtering unwanted digital programs or channels from one or more multiplexed signals comprising the steps of receiving information..., generating instructions..., removing unwanted digital programs or channels..., and combining the remaining plurality of digital programs or channels into a combined signal for transmission’ as recited in claim 70.” The Applicants respectfully disagree with the Examiner. Applicants respectfully maintain that the specification enables one of ordinary skill in the art to make or use the invention in claim 70 without undue experimentation.

The Examiner appears to focus on the step of “removing unwanted digital programs or channels.” See Page 6 of Paper No. 11. The specification clearly provides description enabling this step. For example, the specification states in the Summary of Invention section that “[w]ith this overwhelming number of programs, there must be a method of selecting or cherry-picking desired programs and/or *filtering out unwanted programs* received from a transponder.” Page 6, lines 16-19 (Emphasis added). Again, in the Summary, “[t]herefore, a cable headend must be able to receive, *filter*, combine and route signals received at different data rates for distribution to viewer homes...The present invention solves these problems and others.” Page 7, lines 9-14 (Emphasis added). Yet again, in the Summary, “[i]t is an object of this invention to provide a cable headend which can *filter out unselected* programs from a multiple video/audio program signal.” Page 9, lines 4-6 (Emphasis added). The verb “to filter” is defined as “to *remove* by passing through a filter.” *The New Oxford American Dictionary*. Therefore, the above passages clearly support the removing step.

Further description in the specification clearly provides the enablement necessary for filtering and, therefore, the removing step:

[t]he outputs of the demultiplexers 120 are selectively enabled by the Control CPU 90. Those outputs of the multiplexer that are enabled are then input to the Combiner 104... Alternatively, instead of enabling the outputs of the demultiplexers 120, the inputs of the Combiner 104 may be selected by the Control CPU 90. By enabling or selecting multiplexer outputs, the Control CPU 90 is able to control which television programs are combined and transmitted to the viewers. The Combiner 104 combines the enabled or selected outputs of the demultiplexers 120 into the proper format. Page 26, line 27 – page 27, line 11.

As is clearly indicated by this passage, the demultiplexers 120, or more particularly their outputs, are acting as filters. Only those programs corresponding to the selected outputs of the demultiplexers 120 make it through the demultiplexers 120, a.k.a. filters, and are combined in the combiner. Therefore, this passage describes that the demultiplexers 120 remove those programs corresponding to the unselected outputs from the signals passing through the demultiplexers 120 and that the combiner 104 combines the remaining programs, as in claim 70.

Moreover, even if the specification only described methods of selecting of wanted signals, one of ordinary skill in the art would be able to make or use a method of removing unwanted signals without undue experimentation. The following statement, from page 37, lines 16-20, supports this analysis: “Following the verification checks, the Control CPU 90 sends video configuration data to the configuration logic (function block 212). This configuration data will inform the Combiner 104 of each video signal to *select* and each signal to *de-select*.” (Emphasis added). Consequently, the specification enables claim 70, and its dependent claims 71-73, and allowance of these claims is respectfully requested.

Claim 70 was also rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Paper No. 11 stated that claim 70 “is vague because the phrase ‘combining the remaining plurality of digital programs or channels into a combined signal for transmission’ ... suggest that the remaining digital signals are combined with another signal.” The Applicants respectfully disagree with the Examiner.

To “combine” is defined as “to join (*two* or *more* substances) to make a *single* substance”. *The New Oxford American Dictionary*. Therefore, the combining step recited above simply means “to join the remaining *plurality* digital programs or channels (*i.e.*, two or more substances) into (*i.e.*, to make) a combined signal (*i.e.*, a single substance) for transmission.” If

the combining step referred to a single remaining digital program or channel (e.g., combining the remaining digital program or channel into a combined signal for transmission), then it would suggest that the remaining digital program or channel was combined with another signal. Since the combining step clearly refers to a plurality of digital programs or channels, it is clearly describing the two or more substances (sic) that are combined into the combined signal and it is not suggesting that the remaining digital signals are combined with another signal. Therefore, claim 70 is definite and it particularly points out and distinctly claims the subject matter that the Applicants regard as the invention. Accordingly, the Applicants respectfully request that the Examiner allow claim 70 and its dependent claims 71-73.

Section 102 Rejection

Claim 31 is rejected under 35 U.S.C. 102(b) as being anticipated by Ballantyne. “A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference,” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987); see also MPEP § 2131. Applicants respectfully state that each and every element set forth in claim 31 is not found in Ballantyne.

For example, Paper No. 11 refers to element (“central control computer) 14 of Figures 1A and 1B as being the “means for obtaining communications from the set top terminals” in claim 31. However, an examination of the description of element 14, the description of the user telephone lines 34 attached to element 14, and the communications received from user on the lines 34 shows that element 14 is not the claimed obtaining means. Applicants respectfully note that set top terminals are not disclosed anywhere in Ballantyne. Therefore, it is simply impossible for Ballantyne to disclose the claimed obtaining means.

Ignoring this fact, Applicants note that element 14 “...is responsible for ...all interaction with the user.” Col. 4, lines 3-5. This statement does not state that element 14 interacts with a television set or other component, but simply the user. Further, “[i]nitial user requests are taken either through CDL operator intervention or totally automatic by means of a digital telephone system.” Col. 4, lines 5-7. This statement may seem to suggest some communication with an electronic component, but a further analysis of Ballantyne shows that it does not. “In operation, a customer requests the delivery of a desired movie by *phoning* the central distribution center or regional distribution center (12) and identifying the movie with an identification code unique to

the movie...The customer's requests are either conveyed *verbally* over the phone system to a CDL operator or through an automated communication system using a *touchtone keypad* on a *telephone handset*." Therefore, Ballantyne only discloses receiving communications from a customer/user and not a set top terminal. Consequently, Ballantyne does not disclose the obtaining means of claim 31. Claim 31 is allowable and Applicants respectfully request allowance of this claim.

Section 103 Rejection

Claims 67-69 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nemirofsky and Wasilewski. In determining the differences between the prior art and the claims, the question under 35 U.S.C. § 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. Stratoflex, Inc. v. Aeroquip Corp., 713 F/2d 1530, 218 USPQ 871 (Fed. Cir. 1983) and MPEP 2141.02. To establish a *prima facie* case of obviousness ... the prior art reference (or references when combined) must teach or suggest all of the claim limitations. In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991) and MPEP § 2142. Applicants respectfully state that Nemirofsky and Wasilewski, separately or combined, do not teach or suggest all of the limitations of claims 67-69.

For example, Nemirofsky does not teach or suggest "receiving ... one or more multiplexed signals containing a plurality of digital programs or channels..." as in claim 67. The Examiner cites to network-wide program 20 and market-specific segments 22 as signals. The Examiner concedes that network-wide program 20 and market-specific segments 22 are not multiplexed signals and are not digital. Paper No. 11, page 8. Moreover, neither network-wide program 20 nor market-specific segments 22 are "...signals *containing a plurality of ... programs or channels*" as required by claim 67. Indeed, program 20 and segments 22 "...include an audio and video component [not components] recorded onto conventional recording media", col. 5, lines 12-14 (emphasis added), and therefore, do not contain a plurality of programs or channels. Further, since program 20 and segments 22 are not signals *containing a plurality of programs or channels* Nemirofsky also cannot, therefore, teach or suggest the step of "selecting the desired digital programs or channels ... wherein the selected digital programs or channels are a *subset* of the plurality of digital programs or channels *contained* in the multiplexed signals" from claim 67.

Even if Wasilewski could be combined with Nemirofsky, which Applicants respectfully maintain cannot be done, Wasilewski does not cure Nemirofsky of these defects. The Examiner cites to Figure 17 of Wasilewski. The cable-headend installation in Figure 17 comprises a plurality of service demultiplexers for extracting the individual services from each of the multiplexed data streams received at the installation. Col. 22, lines 7-10. "For each multiplex data stream received at the installation 400, a respective service demultiplexer extracts *the* services [not a subset of the services] carried in that multiplex data stream." Col. 22, lines 20-23 (Emphasis added). Wasilewski indicates "a cable operator may mix services from different programmers, and may add their own local programs." Col. 22, lines 27-29. However, Wasilewski does not teach or suggest "*selecting* the desired digital programs or channels ... wherein the selected digital programs or channels are a *subset* of the plurality of digital programs or channels *contained* in the multiplexed signals" received at the cable-headend installation, as required by claim 67. Therefore, Nemirofsky combined with Wasilewski does not render claim 67 and its dependent claims 68 and 69 obvious, and allowance of claims 67-69 is respectfully requested.

Additionally, Nemirofsky does not teach or suggest "receiving information ... wherein the information includes data on identities of the desired digital programs or channels." The Examiner cites to system control computer 26, presumably as receiving information, and col. 5, line 40 to col. 6, line 51 as teaching that this information includes data on identities of the desired digital programs or channels. The cited system control computer 26 of Nemirofsky does not "receive *information* ... wherein the information includes *data* on *identities* of the desired digital programs or channels." As noted above, Nemirofsky only discloses program 20 or segments 22, not signals *containing* the plurality of programs or channels. Therefore, Nemirofsky cannot receive data on identities of the desired digital programs or channels. As an aside, a thorough examination of the cited col. 5, line 40 to col. 6, line 51 of Nemirofsky does not reveal any teaching or suggestion on receiving information including data on identities of desired market segments 22. Indeed, Nemirofsky only speaks of allowing "user input with respect to the sequencing and timing of the market-specific segments 22 and the network-wide program 20." Col. 5, lines 48-50.

As the Examiner concedes, Wasilewski also fails to teach or suggest "receiving information ... wherein the information includes data on identities of the desired digital

programs or channels.” Therefore, Wasilewski fails to cure Nemirofsky of these defects. Consequently, Nemirofsky combined with Wasilewski does not render claim 67 and its dependent claims 68 and 69 obvious, and allowance of claims 67-69 is respectfully requested.

Even disregarding the above arguments, claims 67-69 are allowable since Nemirofsky cannot be combined with Wasilewski. In order to prove the obviousness of a combination, the prior art references must be considered in their entirety, *i.e.*, as a whole, and must suggest the desirability and thus the obviousness of making the combination. Hodush v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n. 5, 229 USPQ 182, 187, n. 5 (Fed. Cir. 1986) and MPEP 2141.01(a). The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990) and MPEP § 2143.01

Nemirofsky does not disclose a cable headend system as in Wasilewski. Indeed, Nemirofsky only discloses inserting market-specific segments 22 into a network-wide program 20 for distribution to retail sites. “The present invention responds to the need for an effective and cost-efficient point-of-purchase promotional method.” Col. 2, lines 5-7. Modifying Nemirofsky to include the system of Wasilewski would necessarily involve a significant expenditure of funds and, therefore, would not be “cost-efficient.” Moreover, such a combination would provide Nemirofsky with numerous unneeded components and capabilities. Consequently, Nemirofsky teaches against being combined with Wasilewski. Alternatively, Nemirofsky is non-analogous art and, therefore, cannot be combined with Wasilewski. Therefore, under either theory, claims 67-69 are not rendered obvious and allowance of these claims is respectfully requested.

Conclusion

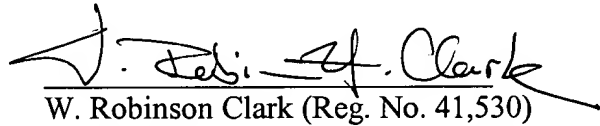
Applicants believe all the claims to be in condition for allowance, and a Notice of Allowability is respectfully requested.

Enclosed is a check for \$1,196.00 to cover the additional claims and fees and three-month extension of time. The Commissioner is hereby authorized to charge any additional fees in connection with this response or credit any overpayment to Deposit Account Number 04-1425. A duplicate copy of this response is enclosed for that purpose.

If the Examiner believes that any issues remain unresolved, he is invited to telephone the undersigned to expedite issuance.

Respectfully submitted,

Dated: August 15, 2002



W. Robinson Clark (Reg. No. 41,530)
for Sean S. Wooden (Reg. No. 43,997)
DORSEY & WHITNEY LLP
1001 Pennsylvania Ave., N.W.
Suite 300 South
Washington, D.C. 20004
(202) 824-8800
(202) 824-8990 facsimile

Attorney of Record

Version with markings to show changes made.

74. (New) A method for cherry-picking desired digital programs or channels from a multiplexed signal comprising the steps of:

receiving information and a multiplexed signal containing a plurality of digital programs or channels, wherein the information includes data on identities of the desired digital programs or channels;

generating instructions regarding the desired digital programs or channels, wherein the instructions are generated using the received information;

selecting the desired digital programs or channels using the generated instructions, wherein the selected digital programs or channels are a subset of the plurality of digital programs or channels contained in the multiplexed signal; and

combining the selected digital programs or channels into a combined signal for transmission.

75. (New) The method of claim 74 wherein the combining step comprises a serializer combining the selected digital programs or channels into a combined signal for transmission.

76. (New) The method of claim 74 wherein the selecting step comprises digital logic selecting the desired digital programs or channels using the generated instructions.

77. (New) A method for cherry-picking desired digital programs or channels from a multiplexed signal comprising the steps of:

receiving information and a plurality of multiplexed signals, each multiplexed signal containing a plurality of digital programs or channels, wherein the information includes data on identities of the desired digital programs or channels;

generating instructions regarding the desired digital programs or channels, wherein the instructions are generated using the received information;

selecting the desired digital programs or channels using the generated instructions, wherein the selected digital programs or channels are a subset of the plurality of digital programs or channels contained in the multiplexed signals; and

combining the selected digital programs or channels into a combined signal for transmission.

78. (New) The method of claim 77 wherein the combining step comprises a serializer combining the selected digital programs or channels into a combined signal for transmission.

79. (New) The method of claim 77 wherein the selecting step comprises digital logic selecting the desired digital programs or channels using the generated instructions.